



## **Fuelling Fitness for Your Sport - AFL**

### **About AFL**

Australian Rules Football (AFL) is a professional sport played extensively throughout Australia and to a lesser degree overseas. The game is played predominantly by men, but there is an increasing level of interest and participation by women. AFL is played from primary school upwards at a variety of levels both amateur & professional.

A game consists of four 20 minutes quarters with "time on" being added for any time the ball is out of play. This usually extends each quarter to 25 – 30 minutes each. Each team consists of 18 players on the ground with 3 interchange players. Players rotate on and off the bench, therefore playing time varies for each individual player.

### **Seasons**

The "off-season" consists of about 6-10 weeks where players do little or no formal training. The length & timing of the off-season depends on whether a team has participated in the finals and the discretion of the coaching staff.

Pre-season is an intense 3-4 months of training prior to the competition season. During this time, players will work closely with the Fitness Staff and Sports Dietitian to ensure that their training and dietary habits are working toward their goals for the season. For example, a player may need to increase lean muscle mass therefore will be doing a heavy weights program and following a suitable eating plan to support muscle growth.

The AFL competition season runs from March to September. Players train anywhere from 2 (at the amateur level) to 10 sessions (at the elite level) each week and do a variety of different training modalities including weights, skills, swimming, running, recovery and flexibility, in addition to games.

### **Physical characteristics**

The physiological demand on AFL players is immense. A players' ideal body composition depends on the requirements of their position on the field. For example, mid-field players need to have good endurance as they run very long distances each match (often between 12-20km). Defenders need to be strong and powerful with their position generally requiring shorter

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bursts of sprinting and anaerobic activities. All players are required to be very fit, strong, agile and lean.

The average age of an AFL player is becoming younger but at present is 23 with an average height of 185cm. This depends on the position played with ruck players typically being over 200cm in height & weighing 99kg in comparison to “on-ballers” who are typically smaller (average 180cm) and lighter (78kg).

Body composition is monitored closely with measurements usually taken by the club Dietitian. A “goal skinfold level” is often set for all players based on the perceived ideal for their position and potential. However, it is important to realise that different playing positions and body types may perform well at varying body fat levels and individual goals should be set for each player. A general goal for mid-fielders would be <45-50mm for 7 sites, roughly equating to a body fat percentage of around 10–12%. In comparison, an acceptable level for a tall ruckman may be <55-60mm. Goals are set on an individual basis and progress assessed regularly to give feedback to the players.

## **Training Diet**

The training diet for an AFL footballer should meet all nutrient requirements & provide appropriate amounts of energy to meet the demands of a high level of exercise and optimal recovery. The diet would also be used as a tool for the footballer to meet their body composition goals eg. increase lean muscle mass, reduce fat mass etc.

The training diet typically includes a high carbohydrate intake (included at each meal & snack) as well as incorporating protein sources at each meal.

## **Fluid Needs**

The fluid requirement for each player varies depending on such factors as their rate of sweat loss and ability to tolerate a high fluid intake. A simple & effective way to estimate fluid requirements in training or game setting is to weigh the player before and after the game. The amount of weight lost is assumed to be fluid and therefore providing the player with feedback as to effectiveness of their hydration during training or the game. Fluid loss can vary significantly between players from none to over 3kg. If a player loses over 2% of their weight as fluid, this is considered significant and they need assistance with their hydration strategy.



It is often very hot during the pre-season and therefore players are more likely to be aware of hydration issues. However, the competition season is conducted during the winter, therefore the stimulus of a hot climate is not taken into account. This means that players must be more aware of drinking enough fluid during training and games to meet their fluid requirements.

Dehydration leads to lethargy, loss of concentration and difficulty with decision making. All these skills are essential during a game of AFL and therefore fluid is a very important component of a player's nutritional intake.

AFL clubs recommend sports drinks to be taken during and after both training and matches. Studies have indicated that the additional qualities of carbohydrate and electrolytes (sodium & potassium) allow the body to maintain a more effective level of hydration & energy compared to water. At other times of the day, we recommend a combination of fluids depending on individual tastes and requirements, with water playing the major role.

Each club has trainers who run out onto the ground during play to offer fluid to then players. This is a very important role and means that those players who are on the ground most of the match are given an opportunity to take extra fluids.

### **What Should I Eat Pre-Event?**

Currently, AFL games are played either in the afternoon or evening. Players will generally eat a meal 3-4 hours before a match then a smaller "top-up" snack to fuel carbohydrate stores about 1-2 hours before a match. Most players do not like to have too much food in the gut prior to a match due the typical feeling of nerves which can make players feel queasy if they have eaten too much.

Typical food choices for a pre-game meal or snack are cereals, sandwiches, pasta, toast, fruit & liquid meal supplements (eg. Sustagen Sport). These foods provide both carbohydrate and protein as energy sources for the game. High fat foods should be avoided as fat slows down the rate of digestion and therefore the stomach may not empty sufficiently prior to the game. Fat also doesn't provide the body with the appropriate fuel for optimal game performance. Players may have their "favourite" foods which they have before every match – typically these are foods which make them feel energetic and well-fuelled for the match. We



recommend that players “test out” meals and snacks prior to playing the match to see how they feel afterwards rather than trying anything new on the day.

### **What Should I Eat/Drink During Competition?**

Ideally AFL players should top up their energy levels by consuming carbohydrate throughout the match. Half time provides a great opportunity to re-fuel, however, many players do not feel physically comfortable eating anything solid during the game due to the intense nature of the sport. Some players choose to have a snack or sports drink at half time to top up energy levels. This depends on individual needs and preferences of the players.

At the elite level, sports drink is provided at training and games. This is also happening much more often at local and school club level. These fluids provide an extra source of carbohydrate as a source of fuel as glycogen levels run low during the course of a game. The pleasant taste of sports drink also encourages a higher fluid intake. Water is also a suitable source of fluid & is offered to all players by trainers who run onto the ground during match play. It is important to remind players of dental hygiene practices if they are consuming sports drinks on a regular basis.

### **What About Recovery?**

At the elite level, clubs provide recovery snacks for all players. These are offered to players immediately after the match and consumption within 30 minutes should be encouraged to promote optimal recovery. Players often don't feel like eating very much due to the strenuous nature of the game but providing light carbohydrate snacks that are high glycemic index is an important strategy to promote recovery. Carbohydrate-containing fluids are often a great option at this early stage post-competition. Recovery snacks should also provide choices that contain both carbohydrate and protein to facilitate maximum recovery.

Suggestions for suitable recovery snacks are:

- Sandwich/roll with low fat cheese/ham/lean meats/jam/honey/banana
- Cereal/muesli bars
- Low fat flavoured milk drinks
- Fresh fruit
- Low fat fruit muffins
- Sustagen sport or liquid meal supplement



At the elite level, games may be played either in the afternoon or evening. For tired players, eating late at night after a game can prove a challenge but planning ahead and having appropriate snacks handy can be a huge advantage for recovery.

### **Other Nutrition Tips**

For many years, the drinking of alcohol particularly after a game has been closely linked to the sport of AFL. At the elite level the players are strongly discouraged from drinking alcohol at all, particularly after the game when the body needs appropriate nutrition, hydration and rest to recover. Nutrition issues related to the consumption of alcohol include dehydration and eating high fat snacks which are not ideal for recovery.

Many players are now using supplements to aid performance & recovery. These need to be used in conjunction with advice from experts such as the Fitness Staff or Sports Dietitian. Some of these supplements have been shown to be effective to enhance performance eg. sports drinks, sports gels whereas others may be used by players due to perceived benefit (they feel better) as opposed to proven benefit.

Drug testing is now commonplace within AFL with each team tested several times throughout the season.

Many players come from interstate or the country and for some, this may be their first time living away from home. Dietitians assist players to plan healthy, balanced meals suitable for their training and lifestyle. For some, this may mean learning to prepare meals they have not cooked before. For others, this may mean learning how to rely on home-cooked meals more than take-away food or how to choose healthy take-away food options.

### **How to get involved**

All AFL & local clubs have many keen volunteers who put a lot of time & effort into co-ordinating the players and staff. If you are interested in becoming more involved, start by contacting your local footy club and offering your services for training or game day. Maybe you could help by preparing snacks for the players or filling up drink bottles to keep the players well hydrated.

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